

Appl. No. 10/043,400
Amdt. Dated January 23, 2004
Reply to Office Actions of 09/23/2003 and 12/24/2003

REMARKS

This communication is in response to the Examiner's Office Actions dated 09/23/2003 and 12/24/2003.

Reconsideration of the above-mentioned application is hereby requested in view of the above amendments and remarks that follow.

Applicants appreciate the Examiner's thoughtful consideration of Applicants' application, and in the indication of allowable subject matter in claims 1-8 and 10-18.

The Examiner rejected claims 1-8 and 9-20 under 35 U.S.C. §112, second paragraph, as failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. More particularly, the Examiner was unclear as to the limitation, "the resilient arm being resilient in a direction generally perpendicular to receiving face." While Applicants respectfully disagree with the Examiner, that the language is unclear, Applicants have amended the specification to specify this language in the specification, and in more particularity, in revised Paragraph 30 herein.

The Examiner rejected claims 9-20 under 35 U.S.C. §112, second paragraph, as failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. More particularly, the Examiner was unclear as to the limitation, "a resilient spacer positioned between said substrate and said housing." Applicants have amended the specification, and in particular paragraph 28 to include the comment that the items 70 are side extension

portions having resilient spacer portions 72, 82. The resilient spacer arms 72 space the substrate 6 in a resilient manner away from the substrate receiving face of the housing as shown, for example, in Figures 7, 8 and 12. However, when a chip is received in the housing and the assembly is situated on a board 160, the resilient spacer arms of the housing allow the substrate to move upwardly towards the substrate receiving face 54, whereby the contacts 102 extend through their openings to contact pads 152 on chip 150. This movement is shown going from the position shown in Figure 12 to the position shown in Figure 13.

The Examiner indicated in his Advisory Action of 12/24/2003, that "a resilient spacer positioned between said substrate and said housing" is not disclosed by the specification and drawings. Applicants respectfully disagree with this statement. The spacer is shown by resilient arms 72, 82, which due to their resilience, allows the substrate 6 to move towards the housing 4, between the positions of Figures 12 and 13.

The Examiner rejected claims 9, and 19-20 under 35 U.S.C. §103(a) as being unpatentable over McHugh, et al. (U.S. Patent 6,179,624) in view of Newell, et al. (U.S. Patent 4,831,359). Applicants believe that the combination of McHugh, '624 and Newell do not combine to show the teaching of claim 9, however, Applicants have amended claim 9 herein to more clearly emphasize the structure of the invention.

The '624 patent shows a housing 6 having a contact 5 to receive an IC package. The Examiner indicated that McHugh

'624 shows a substrate (9) having a plurality of leads extending upwardly therethrough. Applicants believe that this is a mischaracterization of McHugh '624. Rather the leads 56 of McHugh '624 are fixed in the housing, for example by protrusion 513 (see Column 4, lines 12-15). Thus in McHugh '624, it is not the substrate which has the leads extending upwardly therefrom, it is the housing which has the leads fixed therein.

Moreover, as the board 9, and leads 56 of McHugh '624 are not movable relative to each other, there is no reason to provide the spacer at all. Providing a spacer between the board 9 and housing 6 of McHugh '624 would have absolutely no effect at all on the positioning of the leads 56, and more particularly, to the lead ends 57. Nor would it be obvious to provide the spacer of Newell, as there is no teaching of the movement of a printed circuit board in Newell.

However, to make the claim more clearly understandable, Applicants have amended claim 9 to include the limitation that the resilient spacer is positioned between the substrate and the housing, the spacer is deformable to a position where the housing may be moved relative to the leads, such that the leads extend through the chip receiving face. This is shown by comparison to Figures 8 and 13. In the normal state, the leads extend inside the housing to protect them. However, when the spacer is activated by pressing the housing and substrate together, as shown in Figure 13, the housing and leads move relative to each other such that the leads can protrude through the housing where they may contact the circuit above.

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Thus, no such effect would be accomplished, or in fact could be accomplished, by the combination of McHugh '624 and Newell, because the leads 56 are fixed to the housing 6. Thus, while Applicants believe that McHugh, et al., '624 and Newell is not a proper combination, even if the combination is proper, it does not teach the invention as claimed by Applicants in claim 9. For that reason, Applicants believe that all pending claims 1-20 are in condition for allowance and respectfully request early passage thereof.

For all the foregoing amendments and comments, Applicants believe that all of the claims 1-20 are now in condition for allowance, and respectfully request early passage thereof.

Respectfully submitted,



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